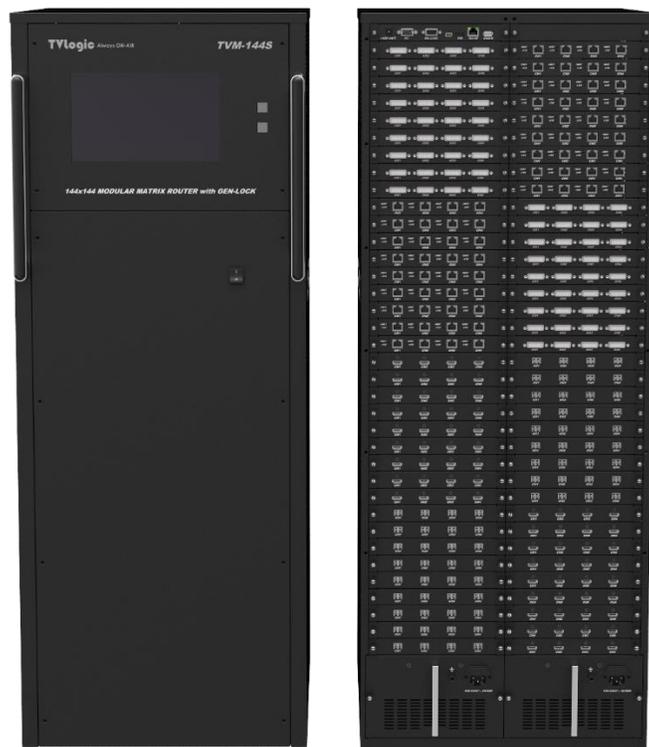


TVM-016S/036S/ 072S/144S

Modular Multi-Format Matrix Router



TVLogic

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* Precaution

Before operating the product, you must make sure to ground, whenever possible, before connecting the input signal cable in order to prevent any possible damage to the product or connected devices.

CHAPTER 1. Product introduction and installation

Modular Multi-Format Matrix Switcher is a product that receives various interface video signals and selects and outputs high-definition digital images to multiple displays.

1. Main Features

- Max. 16~144 input and output
- Various I/O ports : DVI, HDMI, HDBaseT(100m), Optic(2km)
- Resolution : WUXGA (1920x1200) @ 60Hz reproduction rate – 1.65Gbps transmission Bandwidth
- Gen-Lock : 1 μ s Switching time (Real Seamless)
- EDID : EDID read function of output monitor
- R, G, B Re-Clocking of each input and output
- Hot Swap is available for changing Slot
- Signal Generator function
- Redundant Power support
- I/O Format Converting function
- Split Screen : 4-split function(Optional)
- Various control interfaces
 - ✓ Control with front panel (Touch Screen)
 - ✓ Command input and control with RS232, LAN Port
 - ✓ Ethernet Control
 - ✓ I/O and other convenience control function using PC program
- Ethernet IP : point-to-point and local network control
- Specifications
 - ✓ Signal Bandwidth : 1.65Gbps)
 - ✓ Resolution : VGA(640x480) ~ WUXGA(1920x1200), HDTV 480i~1080i/p
 - ✓ Input, Output Port Standards : DVI 1.1, HDMI 1.3, HDCP 1.3

2. Modular Multi-Format Matrix Switcher Components

- Main Body : 1 EA
- Rack Mounting Clasp : 2 EA
- AC Adapter : 1 EA
- User Manual : 1 EA
- Hard Case: 1EA

3. Safety precautions

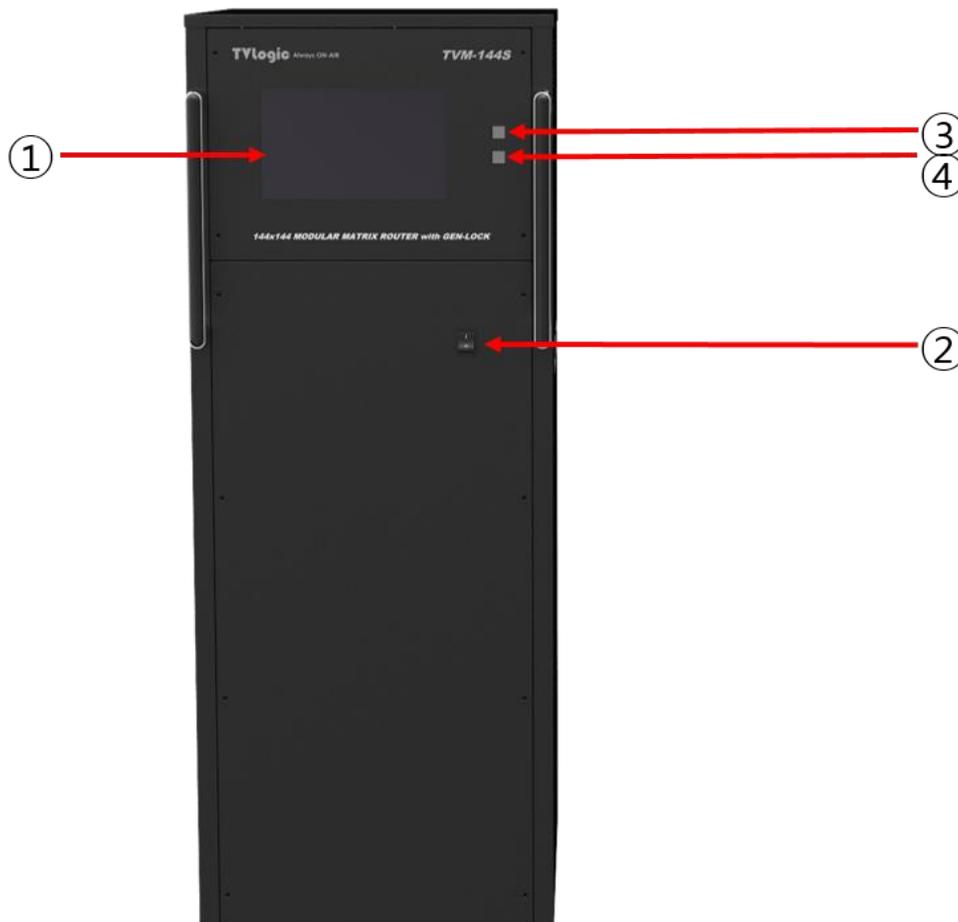
- Use the power cable and connect cable supplied with standard product or specified in the manual.
- When using unauthorized cables, it may cause electric shock and malfunction.
- When using unauthorized cables, please consult with the person in charge beforehand.
- Avoid vibration and strong impact and do not place other heavy objects on the installed product. It may cause electric shock and malfunction.
- Avoid liquid, magnetic, and combustible materials.
- Do not disassemble the product arbitrarily. It may cause electric shock and malfunction.
- While operating, if any abnormal condition or malfunction is observed, after turning off the power and unplugging the power plug immediately and then contact us below.
- Before operating the product, you must make sure to ground, whenever possible, before connecting the input signal cable in order to prevent any possible damage to the product or connected devices.

4. Controls & Functions (Front, Rear Panel)

- Front Panel

Modular Multi-Format Matrix is designed to fit in a standard 19-inch rack with a bracket. The front of the product consists of power switch, LCD On/ Off key, Touch screen lock key and touch screen which can control input/output.

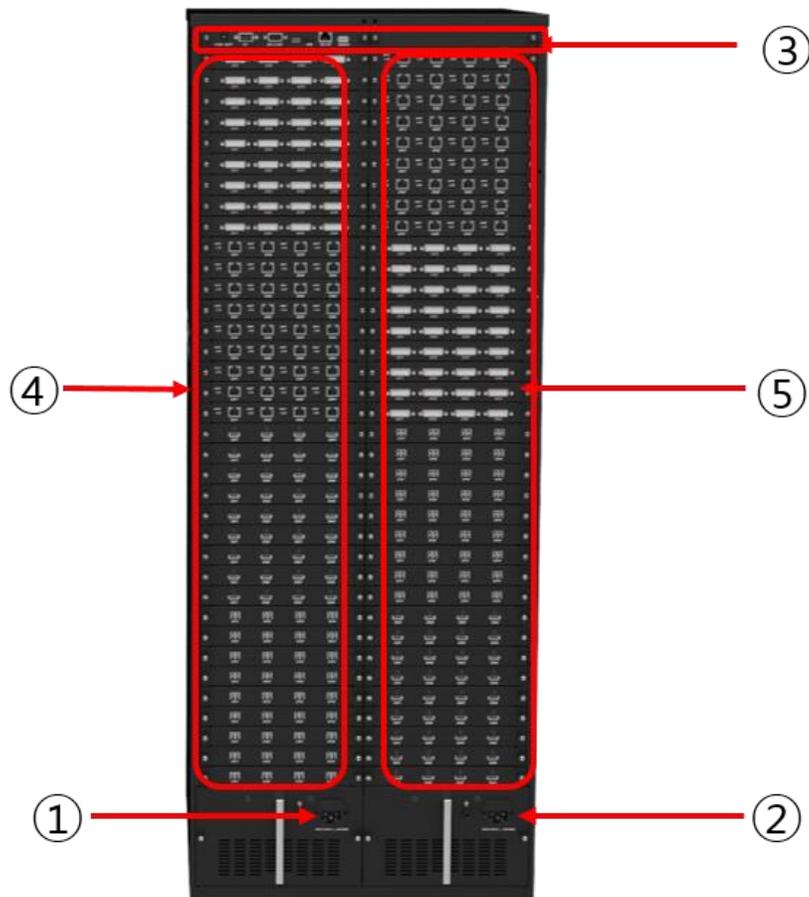
- ✓ Touch screen : Matrix setting and control ①
- ✓ Front Key :
 - ✧ Power On/Off – Key for power On/Off ②
 - ✧ Lock – Key to Lock touch function on the Touch screen ③
 - ✧ LCD On/Off – Key to turn on/ off the LCD display on Touch screen ④



- Rear Panel

All I/O ports and power ports are located on the back of the product. Features are as below.

- ✓ AC Power Jack (110~240V) : ①
- ✓ Redundant AC Power Jack (110~240V) : ②
- ✓ Control Slot : ③
- ✓ 4port Input port : ④
- ✓ 4port Output port : ⑤



* The number of Input and Output depends on maximum number of Matrix ports. (Max 144 ports)

5. Matrix Start and Installation Guide

- Rack Mounting

The rack provided with the product should be installed before installing cables in the product. Based on the front panel, mount the rack-ear to the sides of the product using screws.

- Operation

After connecting the provided power cable to the AC power on the back of the product, turn on the product with the power switch on the front of the product.

When the product is turned on, the initializing screen momentarily appears on the front panel (Touch Screen) and the initial screen of the Touch Screen is displayed on the LCD.

This is a signal that the product has completed all the processes for its operation.

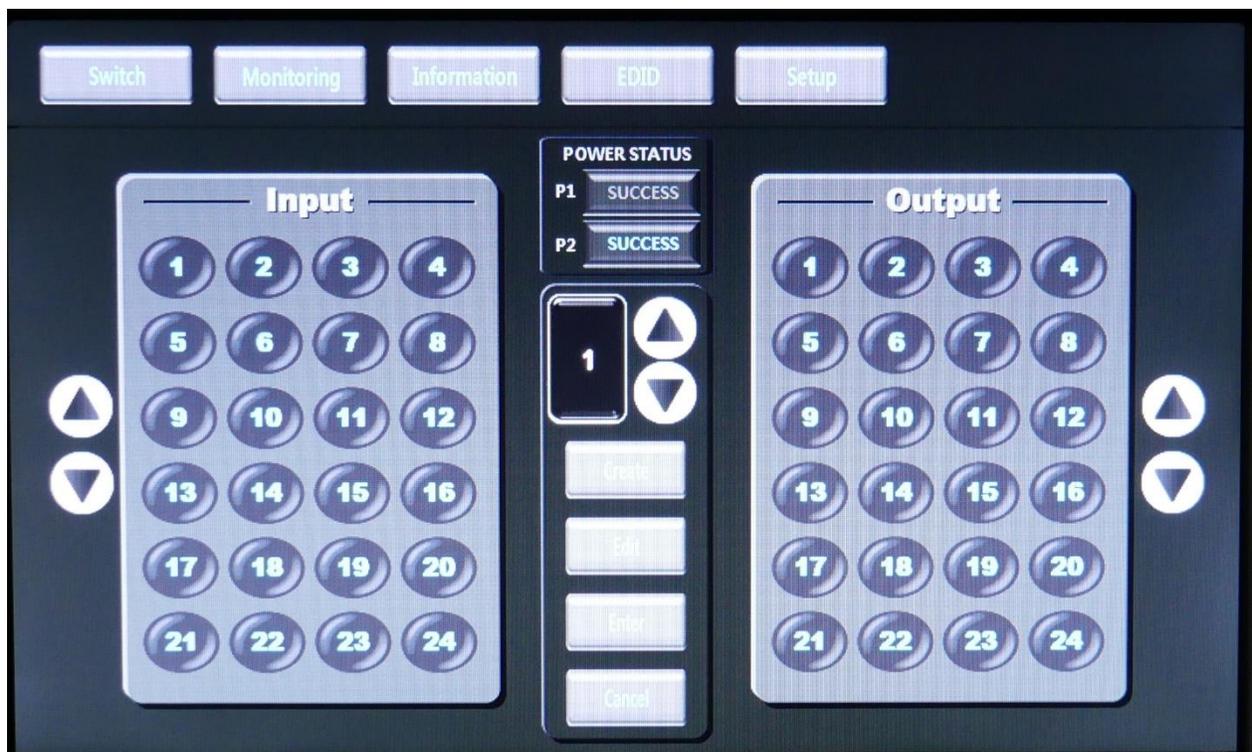
CHAPTER 2. Instruction

1. Control with the Touch Screen on the front of the product

If the Video controller or PC is not connected to the product, all operations and settings can be controlled using the Touch Screen on the front of the product.

When it is pressed, it activates/ deactivates. The ENTER key is used to save the previously set data or to check the specific setting part and the FUNCTION key is used to set various options of TVM Series.

In the FUNCTION mode, after setting the options, be sure to enter the ENTER or SET key to save the data.



< Initial Screen of Touch Screen >

* The number of Input and output depends on maximum number of Matrix ports.(Max. 16~144 ports)

* TVM Series model names are changed according to the number of I/O ports.

- Switch Menu



Method 1)

By pressing the Switch key on the front panel, you can cross set the input and output of desired signal.

- ① Activate the function by pressing the CREATE key in the middle of the above menu.
- ② After selecting the desired input CH (only one input can be selected), select desired output CH (The output can be selected multiple times, press the output key once more and cancel the activation of the key to cancel the selected output .)
- ③ The output connected to the current input is lit blue and it shows the connection status.
- ④ Press the ENTER key to complete the setting.

EX) To output INPUT 3CH signal to OUTPUT 4,5,8CH.

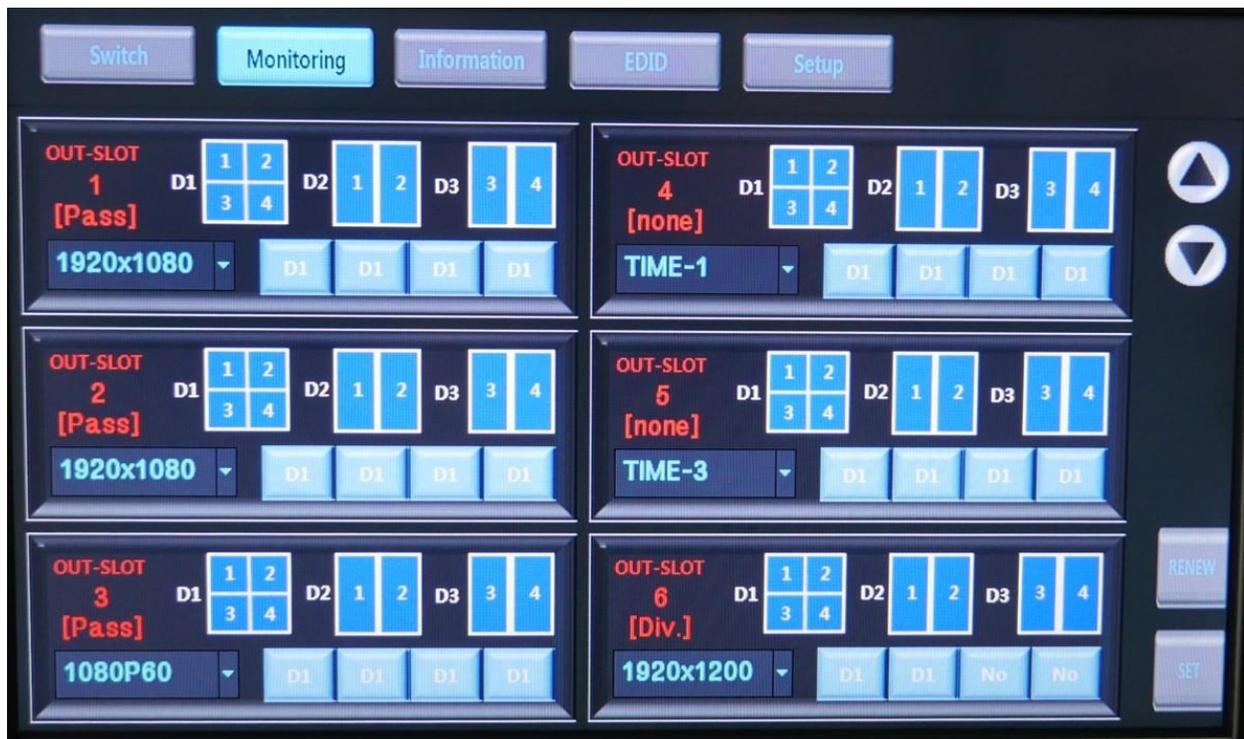
CREATE → INPUT CH1 → OUTPUT CH 4,5,8 → ENTER

Method 2)

If necessary, you can select Preset to complete the setup.

- ① To set Preset, select the Preset number you want to save by using the up or down direction key, and then press the Edit button. Select In / Out as same as Input/ Output setup and press the Enter button to save the Preset.
- ② In order to change the setting saved at the same time as Preset, select the desired Preset, select the desired Preset using the up or down direction key in the middle of the Switch menu and press the Enter button to apply the setting.

● Monitoring Menu(Output Slot Option)



Press the Monitoring button to set the split screen for the output.

The Monitoring menu may be supported according to the product options.

- ① Press the Monitoring button on the top of the Touch Screen to activate the function.
- ② Check the Output Slot to set.
- ③ Select split screen mode among 4-split, 2-split or No (no split screen output) for each output port.

In case of 2-split, you can select the desired output number by pressing the number of the split screen image.

- ④ When the setting for the split screen is completed, press the Set button on the bottom right of the screen to apply the setting.

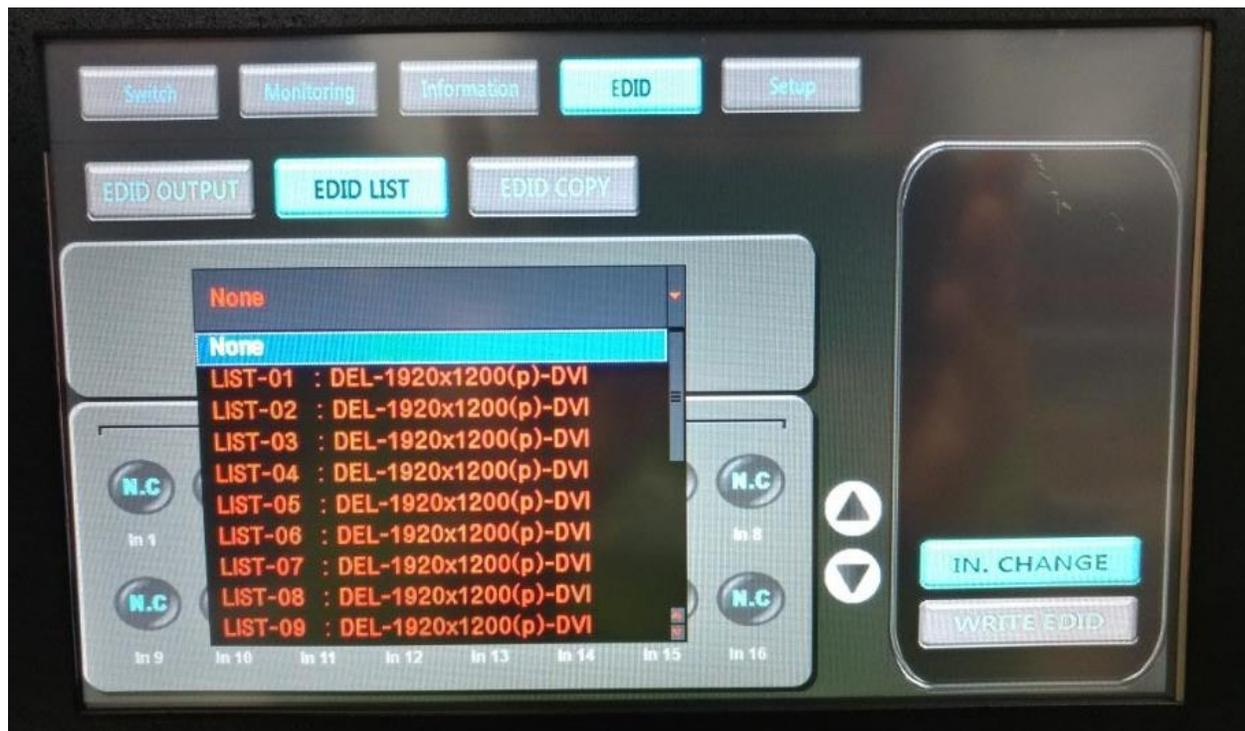
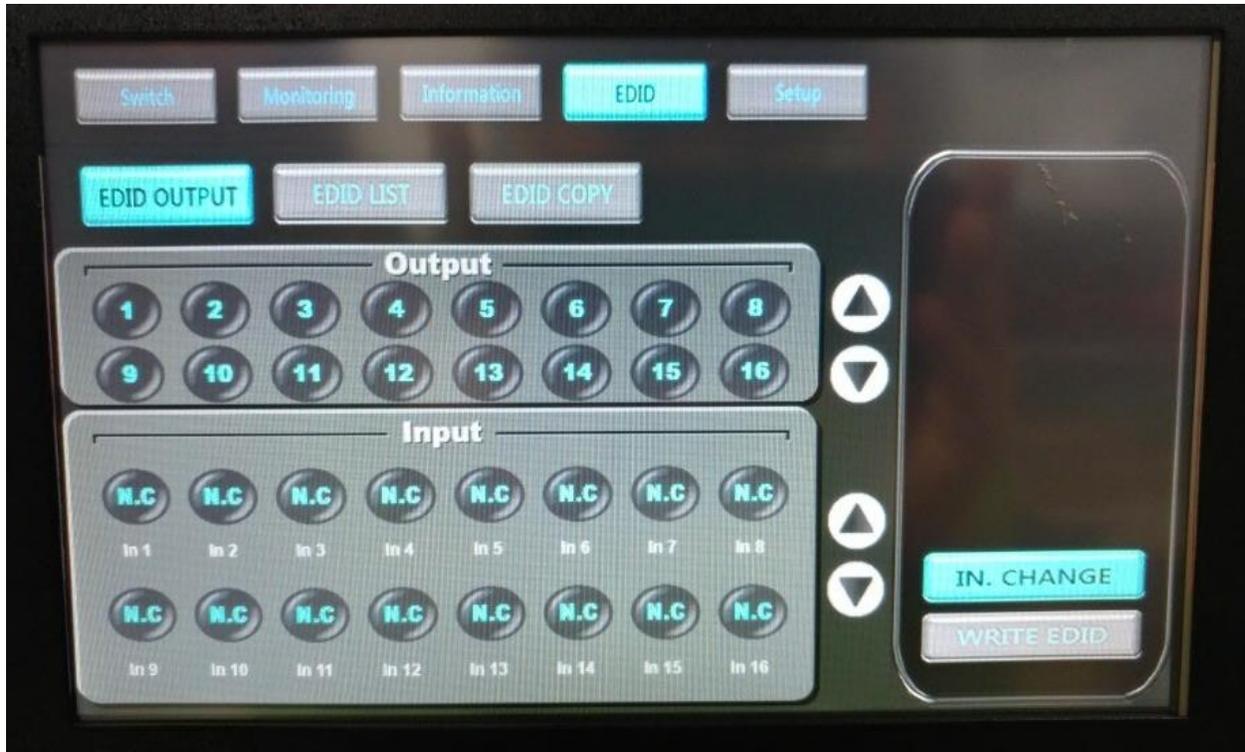
- **Information Mode**



Press the Information button to see information about the current input/ output status.

- ① If the input is recognized normally, LINK is displayed on the corresponding port. Press LINK of the corresponding port to check the information about the input source (Resolution, EDID, Signal, etc.).
- ② If the input is not recognized normally, "N.C"(Not Connect) is displayed on the corresponding port.
- ③ You can check the output information by selecting the desired output port in the Output hot-plug status screen.

- EDID Menu



You can designate or resume the EDID by pressing the EDID button.

- ① Select the submenu of the EDID menu to change the EDID setting.
- ② The EDID OUT menu is to send the EDID of the display connected to the output to the input source. Select the output port that the display with the desired EDID information is connected, and then select the input port to apply.
- ③ The EDID LIST menu is used to transmit EDID information stored in Matrix internal memory to desired input. Select the EDID in the LIST, set the desired input, and press the IN.CHANGE on the right side to complete the setting.
- ④ If the input is not recognized normally, "N.C"(Not Connect) is displayed on the corresponding port.
- ⑤ You can check the output information by selecting the desired output port in the Output screen.

- Setup Menu





Press the Setup button to make other settings such as UART, Ethernet, and TEST Pattern.



FOR MORE INFORMATION PLEASE VISIT : <http://www.tvlogic.tv>

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